Appendix A

Decontamination Materials and Equipment

Various materials and equipment are used in decon operations. Some are simple to use and readily available to individual soldiers. Others are very complex to use and are available only to specially trained team members. Decon equipment and materials listed in the tables of this appendix are divided into two major categories—decontamination and detection. They are further subdivided by the level at which the items will be used. Most items are described for easy identification. They are identified by name, NSN, and picture in most cases. Information for each item also includes its use, its limitations, and applicable reference.

Decontamination—Individual level			
Item and Description	**Use**	**Limitations**	**Reference**
Decontaminating Kit, Skin, M291 (SDK). NSN 4230-01-276-1905 which identifies a box containing 20 kits.	The M291 skin decon kit allows you to completely decontaminate your skin through physical removal, absorption, and neutralization of toxic agent with no long-term harmful effects. NOTE: This kit should be used both for actual combat and for training purposes.	For external use only. WARNING: May be slightly irritating to skin or eyes. Keep decontaminating powder out of eyes, cuts, or wounds.	TM 3-4230-229-10
Skin Decontamination Kit, M258A1 NSN 4230-01-101-3984. Foil-packaged decon towelettes in an olive-drab plastic case.	To decontaminate skin contaminated by liquid chemical agents. May also be used to decontaminate protective mask, hood, butyl rubber gloves, helmet, and individual weapon. It is also useful to decontaminate sensitive equipment such as optics and electronics. Although soap and water are preferred, the skin decon kit may also be used to decontaminate biological agents.	The decon solutions are acidic and caustic. Keep solutions out of eyes, wounds, and mouth. Use water to wash toxic agent or decon solutions out of eyes or wounds and seek medical attention. Do not store where temperature exceeds 110°F.	TM 3-4230-216-10 This item is being replaced by the M291 skin decon kit.
Decontamination–Individual level continued.			

Decontamination—Individual level continued			
Item and Description	**Use**	**Limitations**	**Reference**
Decontamination Kit, Individual Equipment (DKIE) M280 NSN 4230-01-206-4252 Training Aid NSN 4230-01-207-1911	The DKIE was designed to decontaminate an individual's chemical protective gloves, mask, hood, overboots, LCE, and weapon.	The M280 is on hold pending replacement by the M295 personal equipment decontamination kit. WARNING: Do not use for skin decontamination. Keep out of eyes and mouth, off skin and open wounds..	TM 3-4230-224-10

Decontamination—operator/crew level			
Item and Description	**Use**	**Limitations**	**Reference**
Decontaminating Apparatus, Portable DS2, 1 1/2 Quart. ABC M11 NSN 4230-00-720-1618 A fire extinguisher-like device used to spray DS2. It is refillable and is charged by nitrogen cylinders. The apparatus comes with a mounting bracket that may be attached to vehicles and equipment.	To spray DS2 on those surfaces of vehicles and equipment most likely to be touched by operators and crew.	AT low temperatures two nitrogen cylinders may be needed to charge the apparatus	TM 3-4230-224-12 & P TM 43-0001-26-1P
Decontaminating Apparatus, Portable (14 liter). M13 NSN 4230-01-133-4124. A self contained device used to apply DS2 to metal surfaces. It has a 14 liter (3.7 gallon) DS2 container which is disposable. The apparatus can be mounted to standard 5-gallon fuel can mounts on vehicles and equipment.	To spray and scrub DS2 on surfaces of vehicles and equipment.	14-liter DS2 container cannot be refilled. Replacement containers are listed on page D-1, appendix D.	TM 3-4230-214-12 & P TM 43-0001-26-1

Decontamination—battalion decon crew and chemical company level			
Item and Description	**Use**	**Limitations**	**Reference**
Decontaminating Apparatus, Power-Driven, Skid-Mounted, Multipurpose, Integral, 500-gallon, ABC-M12A1 NSN 4230-00-926-9488 LIN F81880 Includes pump unit, tank unit, personnel shower assembly, M2 water heater—all mounted on skids.	To mix and spray decontaminating agent slurries and solutions, and hot, soapy water rinses during field decon operations. Also may be used for firefighting with water or foam, de-icing operations, vehicle washing, pumping various fluids, and showering personnel in the field.	The apparatus is not authorized for use with defoliants, herbicides, or insecticides.	LO 3-4230-209-12 LO 5-2805-259-12 TM 3-4230-209-12 TM 3-4230-209-20P TM 3-4230-209-34 TM 3-4230-209-34P TM 3-4230-209-ESC TM 3-4410-201-12 TM 3-4410-201-20P TM 43-0001-26-1
M17 Lightweight Decontamination System (LDS) The M17 LDS is a portable pump and water heating unit for producing hot water and steam. The system incorporates a 1,580-gallon collapsible water tank, two wand assemblies, connecting hoses, and a shower rail. NSN 423-01-251-8702	The M17 LDS is designed for equipment and vehicle operational and thorough decon operations. The system can also be used for troop showers, as necessary.		TM 3-4230-228-23&P

Detection—Individual level			
Item and description	**Use**	**Limitations**	**Reference**
Paper, Chemical Agent, Detector, VGH, ABC-M8 NSN 6665-00-050-0529. This paper is issued in a book of 25 sheets perforated for easy removal. A color-comparison bar chart is printed on the inside front cover.	To detect the presence of liquid V, G, and H chemical agents.	Cannot be used to detect vapors or chemical agents in water. Exposure to high temperatures, DS2, or petroleum products may cause false readings.	TM 3-6665-205-10/1 TM 3-6665-205-10/2 TM 3-6665-254-12 TM 3-6665-268-10 TM 3-6665-307-10 TM 43-0001-26-1
Detection—Individual level continued			

Detection – Individual level continued			
Item and description	**Use**	**Limitations**	**Reference**
Paper, Chemical Agent, Detector, M9 NSN 6665-01-049-8982 Paper is issued in a 7-ounce dispenser box that contains one 30-foot roll of 2-inch wide detector paper and a plastic storage bag. The paper has an adhesive back for attaching to equipment and clothing.	To detect the presence of liquid V, G, and H chemical agents.	The paper can be used in rain, snow, and sleet, but cannot be used to detect vapors or chemical agents in water. Will not stick to dirty, oily, or greasy surfaces. Contamination indications cannot be read under red light or by a color-blind soldier. The following can cause false readings: • Temperatures above 125°F (52°C). • Brake fluid. • Aircraft cleaning compound. • DS2. • Petroleum products. • Insect repellent.	TM 3-6665-311-10

Detection – company level			
Item and Description	**Use**	**Limitations**	**Reference**
M8A1 Automatic Chemical Agent Alarm NSN 6665-01-105-5623	Provides a method of atomically detecting chemical nerve agents in the air and then giving an alarm. The M8A1 can be vehicle mounted, back-packed, or ground emplaced.	WARNING: Radiation hazard. Contains Americium (AM241)	TM 3-6665-312-12&P
G-M Type Radiacmeter of AN/PDR27 Radiac Set The AN/PDR27 contains a low-range dose-rate Geiger-Mueller (G-M) type instrument. It has four range scales and can detect intensities from 0 to 5 cGy (rad per hour). NSN 6665-00-543-1435J NSN 6665-00-865-3456L NSN 6665-00-961-0846R NSN 6665-01-080-4418S	For monitoring personnel, food, and equipment.	Detects gamma/beta radiation. Measures gamma. Does not detect alpha radiation.	TM 11-6665-209-16 TM 11-6665-230-15 EE 730-DS-OM1-010-4805

Detection—company level continued			
Item and description	**Use**	**Limitations**	**Reference**
Radiac Set, AN/VDR2	The AN/VDR2 set is a lightweight, tactical dose rate meter. The system measures gamma radiation dose rates from .01 uGy/hr to 100 Gy/hr, detects and displays the level of beta particle dose rate from 0.01 uGy/hr to 5 cGy/hr and measures, stores, and displays accumulated dose from 0.01 uGy to 9.99 Gy. The instrument consists of a radiacmeter with an internal sensor for obtaining dose rates during both mounted and dismounted operations. It has a second sensor housed in a probe and attached to the radiacmeter with a cable and input connector. It is used for monitoring personnel, supplies, and equipment. The radiac set utilizes a presettable, audible, and visual warning device integral to the radiacmeter. The system is air transportable and organic to all units.	The AN/VDR2 will be mounted in tactical Army ground vehicles to provide a means for conducting dismounted and vehicular radiological surveys and for performing radiological monitoring of personnel and equipment. It will replace the IM174 ANPDR27 for most operations.	TM 11-6665-251-10
Computer Indicator, Radiac CP696/PDR75. Detector, Radiac/DT-236/PDR-75. Radiac Set, AN/PDR75	The AN/PDR75 radiac set consists of the computer indicator, radiac, CP696/PDR75 (reader); the carrying case, Y8420/PDR75 (dosimeter) is used with, but is not considered part of the radiac set AN/PDR75. The DT236 dosimeter will be issued to every soldier in the theater of operations as a contingency item.	Once tactical operations begin, the DT236 dosimeter is issued to the theater of operations. The radiac computer indicator, CP696/PDR75 is used to measure the accumulated neutron and gamma radiation dose recorded by the DT236 dosimeter. The DT236 dosimeter is worn (on the wrist) by personnel who may be exposed to radiation from tactical nuclear weapons.	
Chemical Agent Monitor System (CAM) NSN 6665-01-199-4153	Used by ground forces to search out areas, to search and locate contamination on personnel, equipment, ship's structures, aircraft and land vehicles, buildings and terrain, and to monitor the effectiveness of decontamination. CAM can also be used for monitoring collective protection. The CAM responds to nerve and blister agent vapors down to the lowest concentrations that could affect personnel over a short period.	The CAM is a monitor and not a detector. Since it is a monitor, it can become contaminated and overloaded (saturated). CAM can only report conditions at the front of the inlet probe. It is, therefore, a point monitor only and cannot give a realistic assessment of the vapor hazard over an area from one position. WARNING: Radiation hazard	TM 3-6665-327-13&P
Detector Kit, Chemical Agent, M256A1 NSN 6665-01-016-8399 The kit consists of a carrying case, 12 sampler-detectors, instruction cards, and ABC-M8 VGH chemical agent detector paper.	To detect and classify dangerous concentrations of nerve, blister, and blood agents in the air and liquid contamination on exposed surfaces. The M256 Series has T2 toxin capability.	Cannot be used to detect chemical agents in water. In high temperatures, DS2, and petroleum products may cause false readings. Tests require 20 to 25 minutes. Unit efficiency goes down with temperature. At 25°F the kit is no longer operable.	TM 3-6665-307-10 TM 43-0001-26-1